EPA Region 9 GIS/Technology Center

Cheryl Henley
EPA R9 GIS Coordinator

Topics:

- About us
- What we do
- Tools & Apps
- Infrastructure
- Managing Everything

The GIS/Technology Center

What and where:

- Located on the 11th floor (NE corner)
- Technology space for anyone to use
- Self-service and instruction provided
- One-stop shop for technology needs
- GIS Center and services

Who:

- Cheryl Henley and Stacy Takeda (EPA)
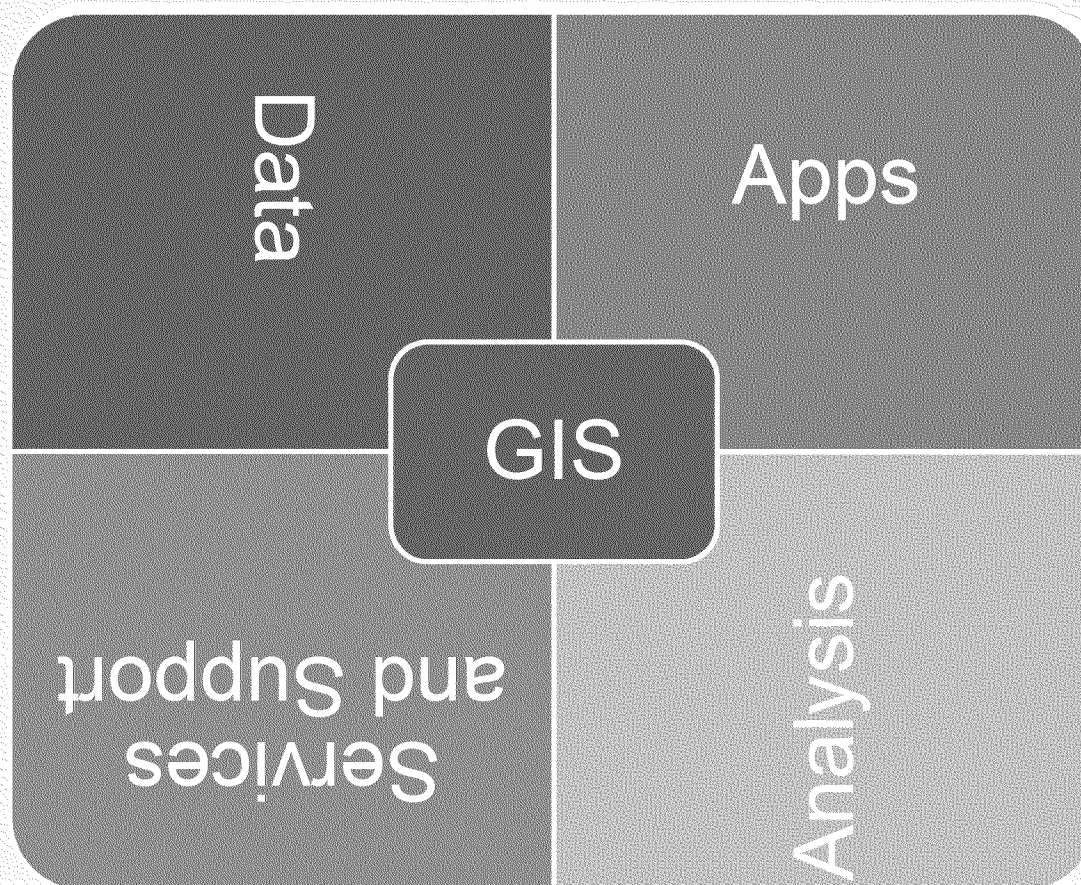- 3 On-Site contractors
- 8 Off-Site contractors

What we do

- Geospatial Data Processing
- Data or Product Review
- Database Development
- Metadata

- Support General GIS
- Map Production
- GPS Support
- Technical Support
- Web production
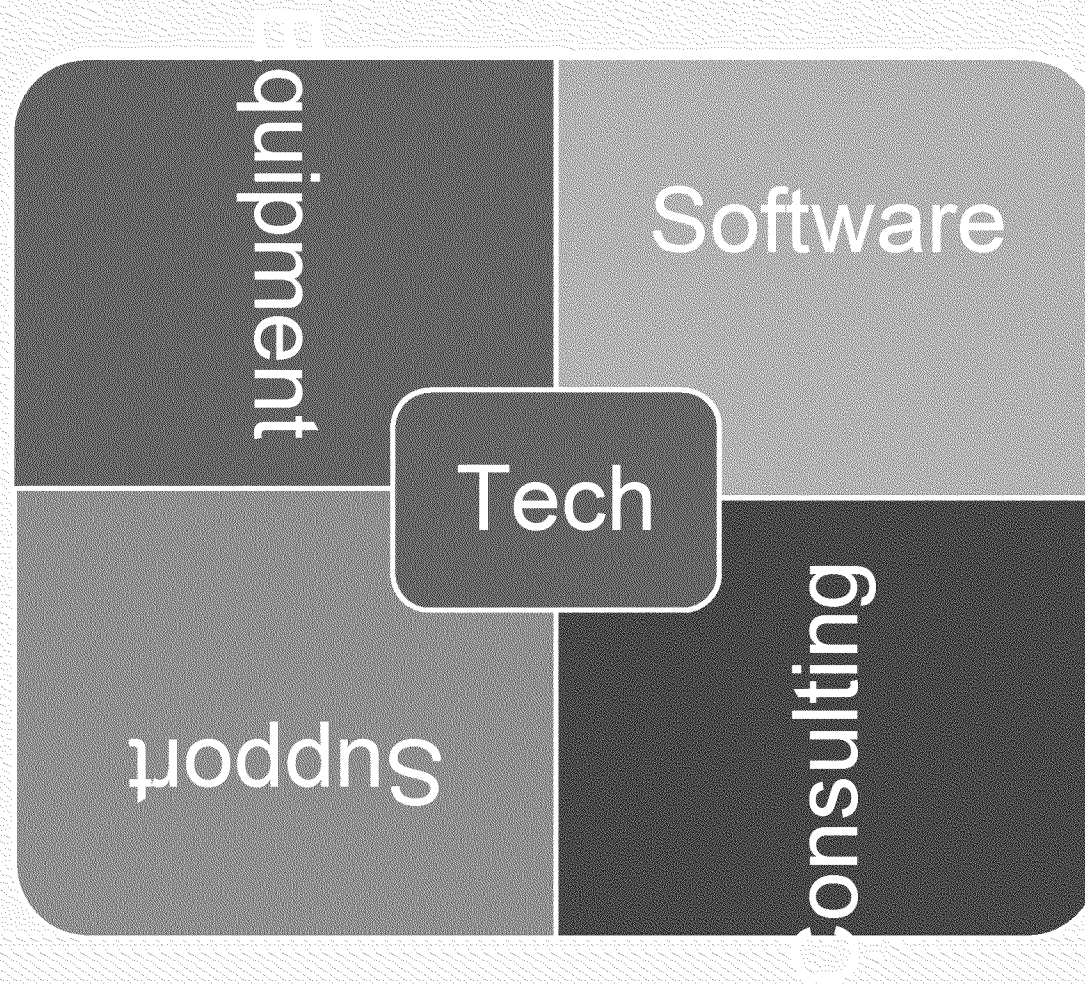- Emergency Response GIS
- GeoPlatform Maps and Tools
- StoryMaps

Data

Apps

GIS

Services and Support

Analysis

- Web maps
- Custom web apps
- Web programming

- Analyze data, ranking, weighting, overlay, statistics, surface, all tools in ArcGIS

What we do (Part 2)

- Plotters
- Production design printing
- Scanning (large)
- Laminators
- Cameras/Video
- GPS
- Mobile
- Projectors
- Cables/odds & ends

- GPS Support
- Technical Support
- Printing/Plotting
- Scanning
- Hardware/Software
- IT General support

Equipment

Software

Tech

Support

Consulting

Access to non-standard software
- ✓ Camtasia
- ✓ In-Design
- ✓ MindManager
- ✓ Adobe Premier
- ✓ AutoCAD
- ✓ ArcGIS
- ✓ Visio
- ✓ MS Project
- ✓ Photoshop
- ✓ Illustrator
- ✓ Sigmaplot
- ✓ Surfer
- ✓ Etc…

- Technology Solutions
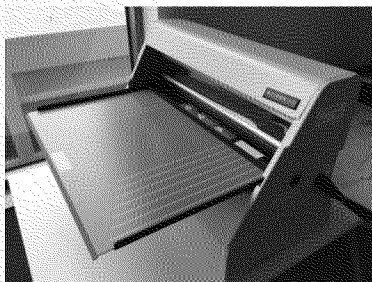- App Development
- GPS
- Data Management

Equipment for Staff Use

http://r9tc.r09.epa.gov/resources/hardware/

Walk-up workstations

42 in. Scanner

Laminators (hot & cold)
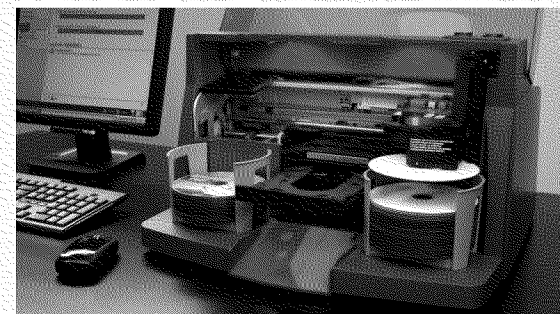

60 in. Plotter

1-to-1 CD & DVD duplicators

High-capacity disk duplicator

Equipment for Loan (on or off-site)

http://r9tc.r09.epa.gov/resources/reserve/hardware.asp
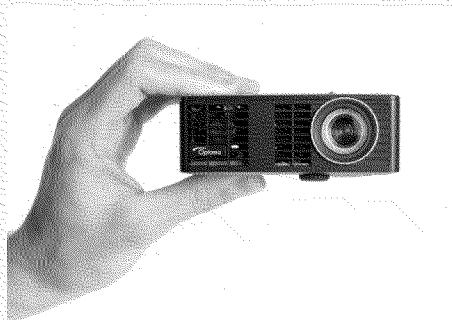
Portable
projectors
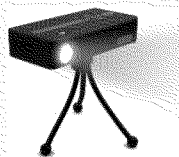
GPS

Camcorders and cameras

Audio

Wireless mobile
printer
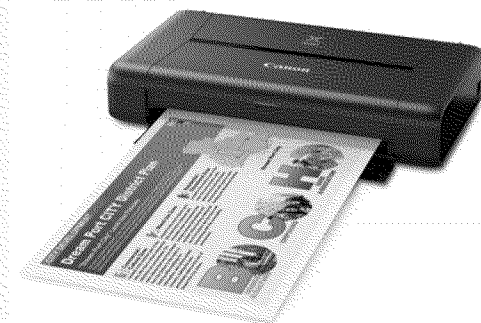
EPA Geospatial User Tools & Apps

ArcGIS Desktop
- Agency ELA
- Install on any desktop (call Helpline)
- Professional Users

EPA Geo-Platform
- Agency Enterprise License
- Web Geospatial Portal
- Great for collaboration
- Easy to use

ESRI Maps for Office
- Available to everyone
- Connects to Geoplatform
- Easy to use

Google Earth Pro
- Free but Stand-alone
- Sharing is difficult
- Still a good tool but don't store and create data there

What is the GeoPlatform?

Online mapping and collaboration workspace for EPA

- Online maps – copy or create your own
- Better than Google Earth
- Used by anyone & everyone at EPA
- Single Sign on – use your LAN ID
- Allows outsiders to join
- Best way to publish maps for the public
- Find lots of data and maps produced by others
- Form a group just for your team or share more broadly
- Cloud-based so accessible from anywhere
- Accessible on mobile devices/phones
- Everyone looking at same content

ONE ♻ EPA
Workplace
GeoPlatform

EPA Home | Privacy and Security Notice | Comments and Suggestions | Contact Us

EPA Featured Maps

EPA International Programs   EPA Map of Tribal Areas   My WATERS Mapper

The EPA GeoPlatform is a shared, One EPA technology and governance framework, which encompasses a community of expertise as well as a suite of geospatial tools, data and services that will help coordinate and consolidate mapping activities, applications development and data management across the Agency.

Geoplatform Groups

- Team collaboration space
- Private or shared
- Can invite external partners

R9 ER Geoviewer Gallery
Emergency Response Flex Geoviewers
owned by Region9_EPA on May 27, 2014
Details

R9 Gold King Mine Response
Region 9 Gold King Mine maps and data related to the Gold King mine release in Region 8.
owned by Region9_EPA on August 11, 2015
Details

R9 Navajo AUM
Navajo Abandoned Uranium Mine Projects and Data
owned by Region9_EPA on June 5, 2015
Details

R9 Office of Civil Rights
Group for Region 9 OCR.
owned by Region9_EPA on August 27, 2014
Details

R9 Tribal LUST Team
Our goal is to create a map of all Tribal LUST sites in Region 9 (approximately 475 facilities) that can be refreshed from our internal database.
owned by kdixon_EPA on January 7, 2014
Details

R9 Watersheds Section
A group for sharing maps and data in the Region 9 Watersheds Section.
owned by Region9_EPA on September 3, 2015
Details

R9 Wetlands Section
Workspace to share data and maps for the Region 9 Wetlands Section.
owned by Region9_EPA on July 9, 2015
Details

R9 Tern Island
Contains maps and files related to EPA work on Tern Island
owned by Region9_EPA on September 3, 2014
Details

R9 Saipan Typhoon Soudelor
Group for Saipan Typhoon Soudelor responders
owned by Region9_EPA on August 5, 2015
Details

R9 Site Assessment
GeoPlatform projects and data for the Region 9 Site Assessment Office.
owned by Region9_EPA on June 14, 2013
Details

R9 Brownfields
Group provides services and maps supporting the Brownfields program in Region 9.
owned by Region9_EPA on April 1, 2014
Details

R9 Carson River Mercury Site
A group for the Carson River Mercury Site in Region 9
owned by abain_EPA on December 4, 2014
Details

R9 Cesspools
Maps and data related to Large Capacity Cesspools program
owned by Region9_EPA on April 15, 2014
Details

R9 Climate Change Adaptation
This group deals with climate change by adapting to it.
owned by Region9_EPA on April 28, 2015
Details

R9 Data
This group contains Map Services and Web Maps containing geospatial datasets for Region 9.
owned by Region9_EPA on April 26, 2013
Details

R9 Data - Navajo Nation
This group contains Map Services and Web Maps containing geospatial data pertaining to the Navajo Nation.
owned by Region9_EPA on May 8, 2013
Details

R9 Data - Pacific Islands
This group contains Map Services and Web Maps containing geospatial datasets pertaining to the geographic region of the Pacific Islands.
owned by Region9_EPA on May 8, 2013
Details

R9 EJ
Maps and data supporting Region 9 EJ activities
owned by Region9_EPA on September 9, 2013
Details

R9 Enforcement Targeting
Group for Region 9 Enforcement maps and data.
owned by Region9_EPA on February 25, 2014
Details

R9 ER
Geospatial data and maps supporting Region 9 Emergency Response Activities.
owned by Region9_EPA on September 25, 2012
Details

R9 ER Cloud
Contains content from the R9 Emergency Response Cloud
owned by Region9_EPA on July 14, 2015
Details

Customized Mapping Apps

Explorer for ArcGIS

- ➤ View all your Geoplatform maps and data on a mobile device

- ➤ Find places, plan routes, and get directions

- ➤ View your data relative to your location

ESRI Collector

Collector for ArcGIS
ArcGIS Online
OR
Portal for ArcGIS
Try it
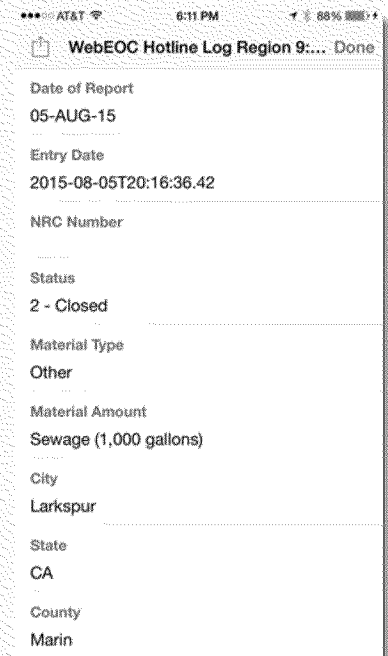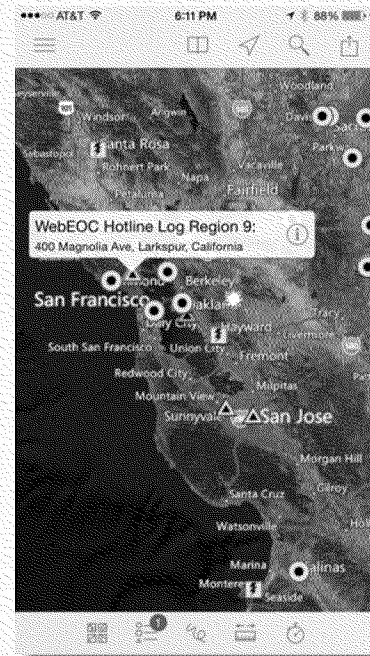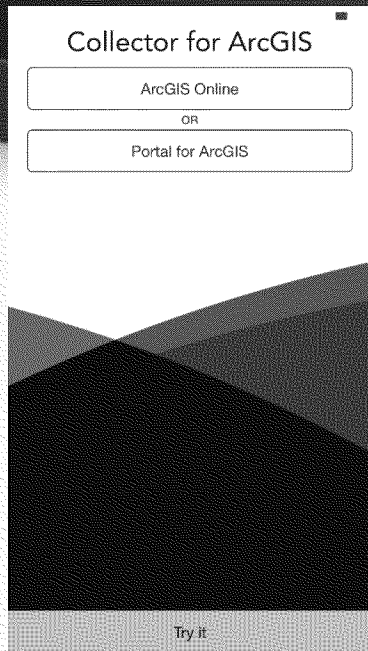
➢ Use iOS or Android device to collect/update data in the field

➢ Syncs real-time to maps in the Geoplatform or can sync later

➢ Works connected or disconnected to internet

➢ Share captured photos and videos.

ESRI Maps for Office

Make dynamic maps of your spreadsheet data right in Excel. Create color-coded, point, clustered point, or heat maps. Add other data from the Geoplatform. Then share your maps through the Geoplatform or copy them into your PowerPoint presentation or document.
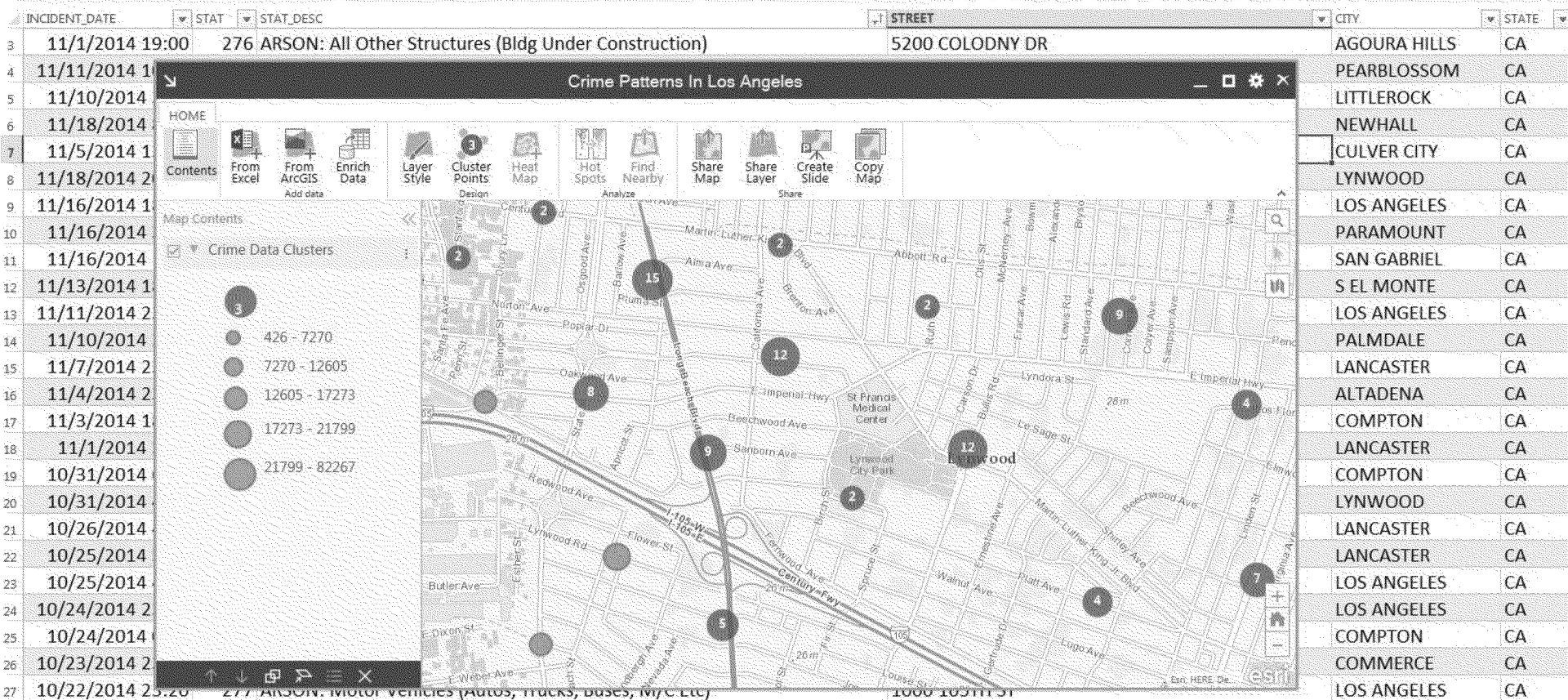
Mapping Tools

Public
- EJSCREEN (demographics) – Public
- NEPAssist (Internal and Public)
- Air Division Mapping Application (ADMA) – Public
- Story Maps (Tern Island example)

Internal
- TIER II (facility chemical data and contacts)
- R9 Common Operating Picture (COP) - Internal
- Geographic Response Plan (GRP) maps

R9 COP
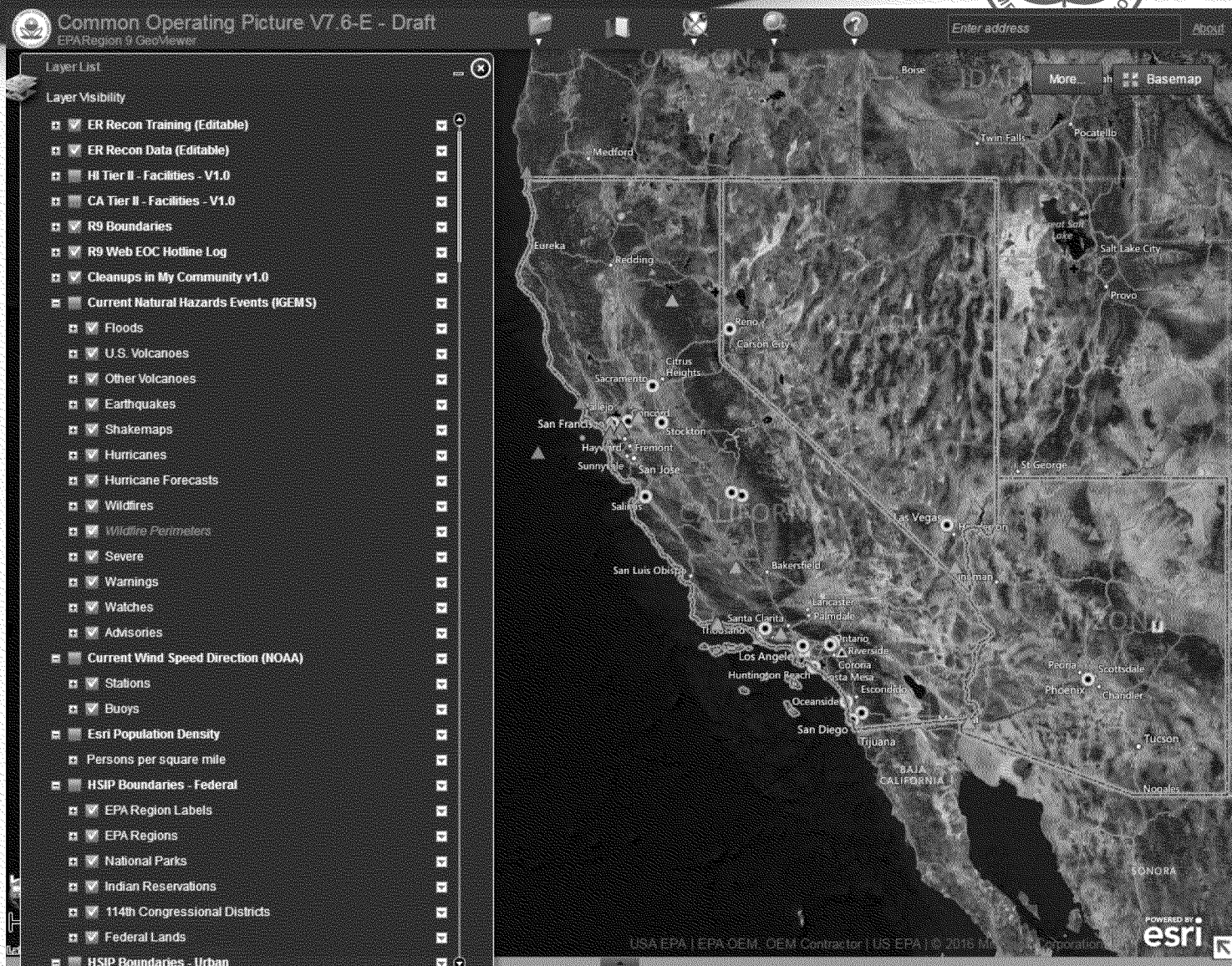
EJSCREEN
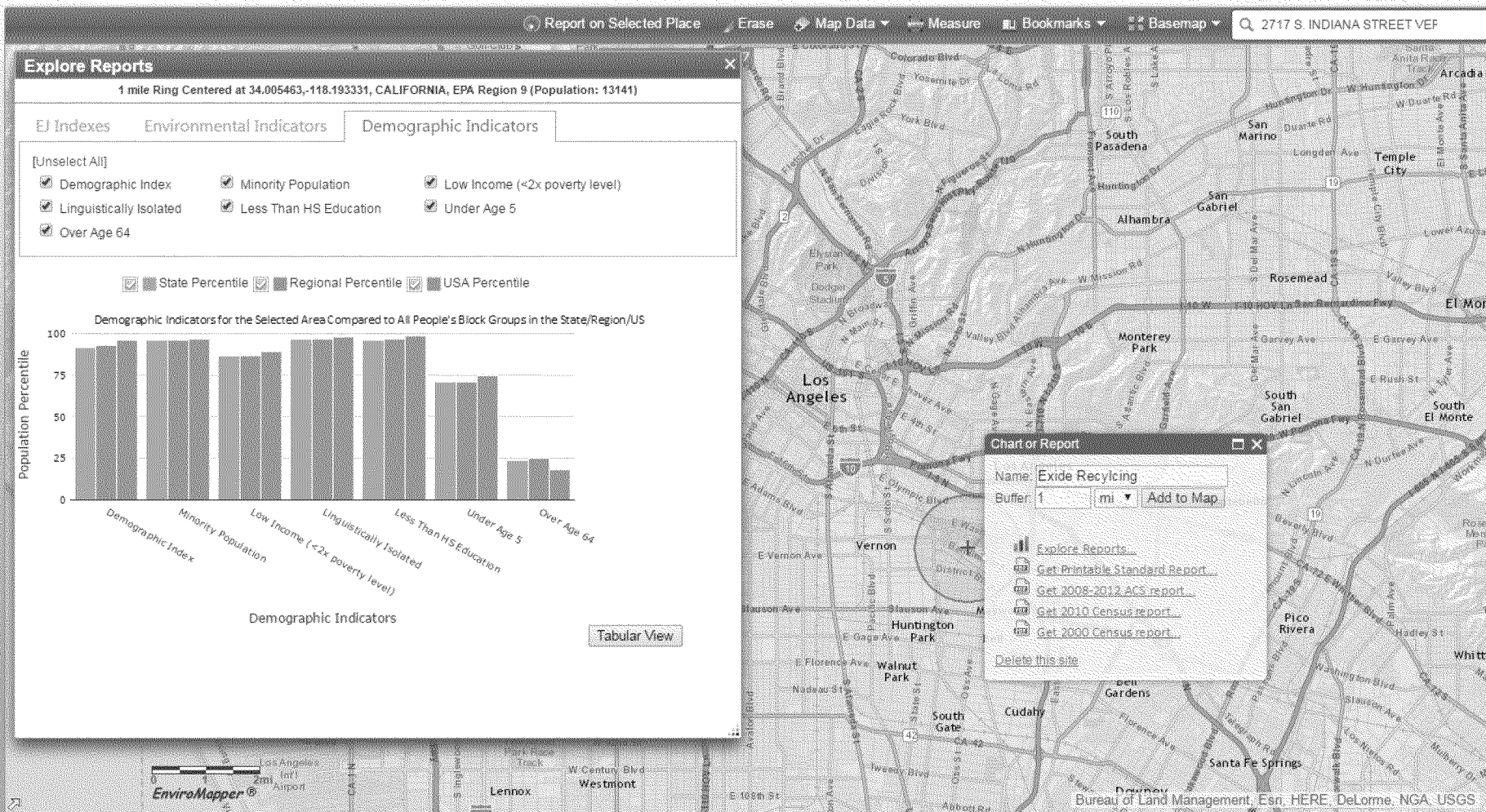
TIER II Tools

Infrastructure

GIS Servers

r9gisapps2
- ArcGIS Server 10.3.1 Status
- ESRI LM 10.3.1 Status
- 0 Disk(s) over 90% full

RAM 76.9% of 16.0 GB used   C drive space 84.5% of 79.9 GB used   All drives 62.4% of 129.9 GB used

r9gissql2
- SQLServer 2008, SDE 10.3
- 0 Disk(s) over 90% full

RAM 55.0% of 16.0 GB used   C drive space 37.7% of 129.9 GB used   All drives 49.8% of 429.9 GB used

r9gisapps
- Old AGS 10.0 Status
- AutoCad License Status
- 0 Disk(s) over 90% full

RAM 70.0% of 6.0 GB used   C drive space 56.4% of 129.9 GB used   All drives 57.2% of 3293.5 GB used

r9gissql
- SQLServer 2012, SDE 10.3.1
- 0 Disk(s) over 90% full

RAM 12.5% of 16.0 GB used   C drive space 42.0% of 119.9 GB used   All drives 51.1% of 4215.9 GB used
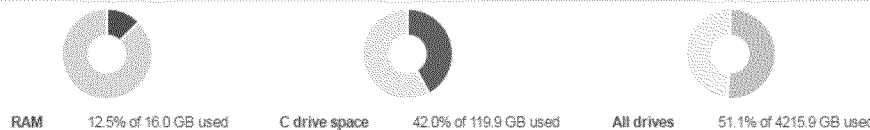
r9gisdev
- 0 Disk(s) over 90% full
Open Staging Website-->

RAM 87.5% of 4.0 GB used   C drive space 77.3% of 78.4 GB used   All drives 29.8% of 478.4 GB used
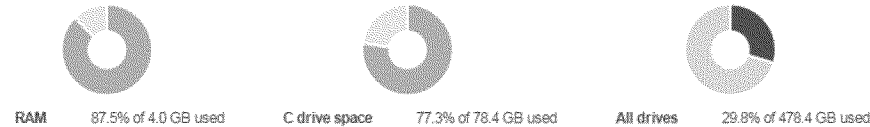
Recent Projects

Due soon or past due	43
Waiting review	20
Pending waiting assignment	1
Finshed last week	0
New last week	0
Open in progress or on hold	23

All Projects

Completed	1577
Canceled	34
In Progress	34
Review Deliverable	15
Completion Required	6
Review Completion	5
Deliverable Approved	3

Maps

Archive	676
Showcase	225
	1

Helpline

Completed	84
In Progress	4
Canceled	3
Pending	3
On Hold	1

Action Items

Completed	488
On Hold	106

Dataset Status

Produced	580
Archived	74
Pending	54
Processed	5
Queued	5
Assigned	2
PeerReviewed	2

Dataset Types

FeatureClass -R9 SDE 2008 SQLserver	505
Geodatabase File -fgdb	191
Map service URL	9
Image service URL	8
Shapefile -zip	3

Dataset Categories

Boundaries	126
Water Inland	119
Contaminants	80
Facilities	70
Demographics	48
Transportation	40
Environment	32
Air	26
Health	19
Water Oceans Coasts	19
Cultural Resources	17
Biologic Ecologic	16
Landuse Landcover	16
Safe Drinking Water Info	13

Geoplatform Access Mgmt

Single Login

Map

Public / ESRI Service

Secure Service ER Cloud

Public / EPA Geoplatform ArcServer

Feature Services with Editor Tracking on the GeoPlatform
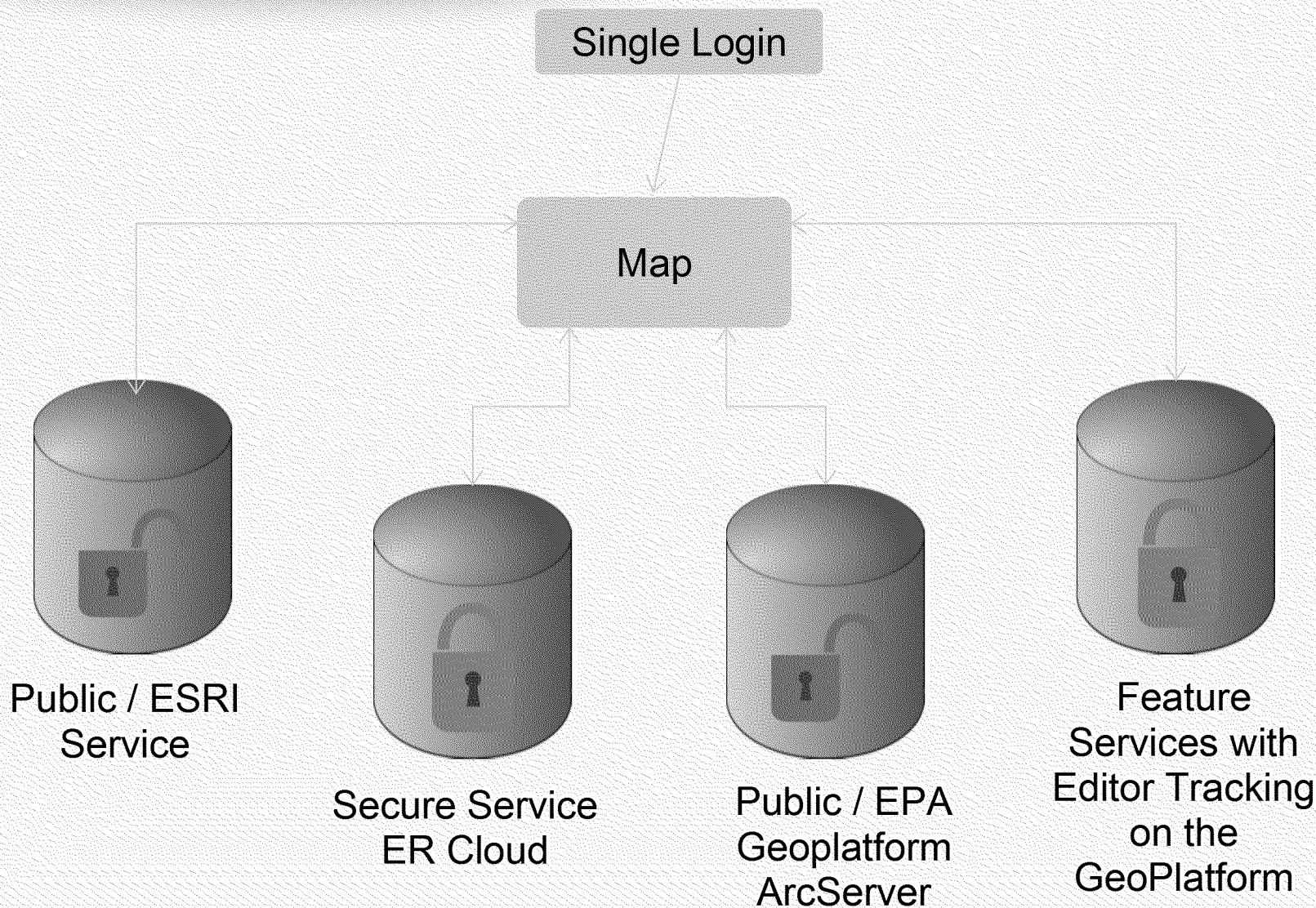
Servers Utilized at Region 9

Region 9 Servers

Network	Server Name	Alias
R9TC	OFFLINE R9 GIS File Server	OFFLINE R9GISMO
R9TC	OFFLINE R9 Oracle Image Server	OFFLINE R9SPATIAL
R9TC	GIS File Server and Old R9 GIS Applications	R9GISAPPS
R9TC	R9 GIS Applications v2	R9GISAPPS2
R9TC	R9 GIS Development	R9GISDEV
R9TC	R9 GIS Data Server v1	R9GISSQL
R9TC	R9 GIS Data Server v2	R9GISSQL2
NCC	Environmental Dataset Gateway	EDG
NCC	Environmental Dataset Gateway	EDG-STAGING
NCC	Geoplatform-10 Production	GISPUB10
NCC	Geoplatform-6 Production	GISPUB6
NCC	Geoplatform-10 Staging	GISSTG10RTPNC
NCC	NCC GIS FTP Server	NCC FTP
NCC	Orator Production	ORATOR
NCC	Orator Staging	ORATOR-S
ERCloud	R09-DB	R09-DB
ERCloud	R09-Doc	R09-Doc
ERCloud	R09-GIS	R09-GIS
ERCloud	R09-Web	R09-Web

Automated Tasks

Managing Everything

GIS Project Mgmt

Open GIS Projects

Select, Sort, Keyword Search for Projects

| | Keyword Search | -- Filter by Assigned -- ▼ |

-- Filter by Status -- ▼ | -- Filter by Requestor -- ▼ | -- Filter by Project# -- ▼

Add New Project

Project#	Request Date	Requestor	Project Title	#To Review	#To Revise	Priority	Assigned	Status	Due Date
SFD-16-02324	3/21/2016	Kelly Manheimer	AMCO Chemical Superfund Site, Phase II		2		Frank Roberts	Assigned	9/30/2016
EMD-16-02320	3/21/2016	Cheryl Henley	GIS / Tech Center Websites		2			Routed	
SFD-16-02322	3/15/2016	Amanda Pease	Cameron AUM Fact Sheet map update	1	2		Mo Tangestani	In Progress	4/8/2016
EMD-16-02321	3/15/2016	Cheryl Henley	ArcGIS License Manager v.10.4.1 installation	1	2		Phil Watts	Review Deliverable	3/25/2016
ER-16-02319	3/3/2016	Bill Robberson	Offshore Marine Debris Survey (OMDS)		2		Frank Roberts	In Progress	9/30/2016

Home   Projects ▾   Maps & Apps ▾   Data ▾   Servers ▾   Other Pages ▾   Admin Logout

Project#	Request Date	Requestor	Project Title	Priority	Assigned	Status	Due Date	Description
OPA-16-02316	2/18/2016	William Glenn	EPA 2016 Annual Progress Report	2	Mo Tangestani	Review Deliverable	2/25/2016	First DRAFT due 2/25/16 (FIRM) Provide mapping support for development of the E PA 2016 Annual Progress Report center pages. The theme this year is the Pacific Islands. Create a map with the rough dimensions of 16 1/2 (W) x 7 1/2(H) (adju ... **(click project details tab for complete description.)**

Project folder: S:\projects\OPA\OPA_16\OPA-16-02316

Notes folder: S:\projects\OPA\OPA_16\OPA-16-02316\Documentation\MeetingNotes   **Click to Open Folder from IE**

Quick Status Update   [Pending ▼]   ☐Email to WAM ☐Email to Analyst   **Save Status**

Project Details | Time Scoping | Action Items | Activity Log | Deliveries | CloseOut | Weekly Comments | Weekly Action Plans

Add Deliverable Link

User	Date	Needing Review Deliverable	Deliverable File Path
Mo Tangestani	3/4/2016	Initial Delivery, PDF map - This pdf file was used to generate an illustrator file, showing Pacific Islands, including South Pacific islands.	S:\projects\OPA\OPA_16\OPA-16-02316\Exports\SouthP...

(partially hidden right column continued)

ent Valley map update for			2	Rebecca Chapman	Review Deliverable	3/28/2016
Progress Report	1		2	Mo Tangestani	Review Deliverable	2/25/2016
age App - Locations			2	Phil Watts	In Progress	9/30/2016
Maps			2	Mo Tangestani	Completion Required	2/19/2016
pping Tool			2	Mo Tangestani	In Progress	3/11/2016
up sites			2	Mo Tangestani	Completion Required	2/16/2016
/QIF public map	3		2	Mo Tangestani	Review Deliverable	3/4/2016
port - HELPLINE (2016)			2	GIS Team	In Progress	9/30/2016
NAVTEQ	1		2	Phil Watts	Review Deliverable	4/1/2016
Superfund Site Phase I rvice and Web Map	1		2	Mo Tangestani	Review Deliverable	2/12/2016
JM Web Map App Publishing			2	Mo Tangestani	In Progress	3/31/2016
TRI 2014	2		2	Phil Watts	Review Deliverable	3/31/2016

Data Management Tool (DMT)

Problem:

- Too much data

- Too many requirements

- Too little time

- Too few people

Data Management Tool (DMT)

Purpose:

- Track data processing lifecycle

- Manage data relationships

- Data discovery and access
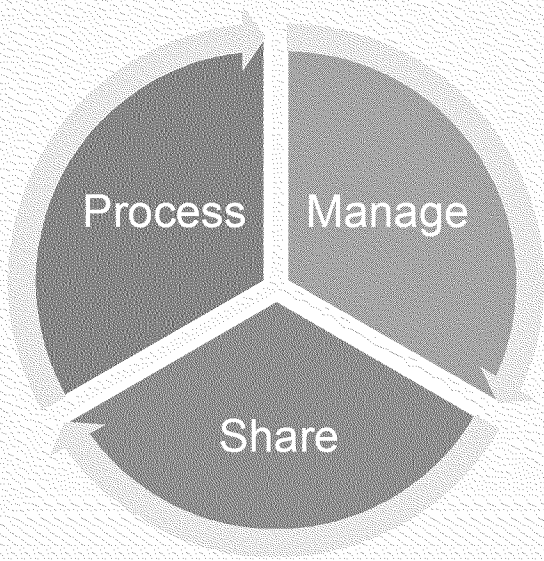
DMT Inventory 715 of 715 shown

Status Summary
Pending (53)   Queued (4)   Assigned (3)   Processed (4)   Staged (0)   PeerReviewed (1)   Produced (576)   Archived (74)

R9 Category Summary

Agriculture (10)	Air (26)	Biologic Ecologic (16)	Boundaries (125)
Cadastre (11)	Climate Weather (1)	Conservation Protected Area (13)	Contaminants (95)
Cultural Resources (17)	Demographics (47)	Economics Business (7)	Elevation (2)
Facilities (72)	Geology (13)	Health (19)	HSIP (7)
Imagery (8)	Landuse Landcover (16)	Locations (3)	Natural Hazards (2)
Reference Grids (3)	Safe Drinking Water Info Sys (13)	Transportation (40)	Unknown (0)
Utilities (11)	Water Inland (119)	Water Oceans Coasts (19)	

Year of Data Summary

Unknown (112)   Multiple (1)   2015 (16)   2014 (30)   2013 (52)   2012 (60)   2011 (48)   2010 (32)   2009 (55)   2008-2012 (1)   2008-2011 (1)   2008 (16)
2007 (122)   2006 (29)   2005 (8)   2004 (13)   2003 (14)   2002 (33)   2001 (4)   2000 (7)   1999 (9)   1998 (19)   1997 (3)   1996 (1)
1995 (5)   1994 (2)   1993 (1)   1992 (7)   1991 (2)   1989 (2)   1988 (1)   1984 (2)   1981 (3)   1968 (4)

Website Access
EPA Intranet (236)   Admin Only (479)

| Clear Filter | | Keyword Search | Add New |

-- Filter by Data Type --   ▼   -- Filter by Status -- ▼   -- Filter by ISO Category -- ▼
-- Filter by R9 Category --   ▼   -- Filter by Website -- ▼   -- Filter by Assigned To -- ▼

Thumbnail	Data Type	R9 Cat.	ISO Cat.	Title	Web Summary
	FeatureClass -R9 SDE 2008 SQLserver	Contaminants	Environment and conservation	**ER LCR Hazards**	
	FeatureClass -R9 SDE 2008 SQLserver	Water Inland	Utility and communication networks	**ER DW Dist Questions**	
	FeatureClass -R9 SDE 2008 SQLserver	Contaminants	Environment and conservation	**ER Russian River Hazards**	

Data Management Tool (DMT)

Design
Tables & Data Elements	Workflow

Build
Databases	Programming

Populate
Inventory	Processing

What's in DMT?

Where is all this data?

- On EPA R9 Servers (internal)
- On EPA NCC Servers (public)
- In the Geoplatform (arcgis online) (internal and public)
- EPA Environmental Dataset Gateway (edg.epa.gov) (internal and public)
- data.gov (public)

Geoplatform Mgmt

Help Page   How To Search   How To Restore

☑ EPA R9 Only

[   ]   Filter on Title   Owner [All ▼]   Type [All ▼]   Access [All ▼]

Records Found: 279 Fetch Date: 3/28/2016 4:04 PM   Export   To Excel

Owner	Created	Modified	Title	Type	Access	Access Information	Url	Views	Item Details
mtangest_EPA	3/11/2016	3/11/2016	CRMS_OU1_OU2Areas	Web Mapping Application	private		https://r9.ercloud.org/epar9gi...	0	View Online
mtangest_EPA	3/3/2016	3/3/2016	Web App Builder	Web Mapping Application	private		http://d0909bgislab002.aa.ad.e...	1	View Online
Region9_EPA	2/18/2016	3/11/2016	CoveWashAUM	KML	private		https://epa.maps.arcgis.com/sh...	8	View Online
Region9_EPA	2/18/2016	3/11/2016	2016 Progress Report - CNMI	Web Map	shared			9	View Online
Region9_EPA	2/17/2016	3/11/2016	2016 Progress Report - Guam	Web Map	shared			12	View Online
...EPA	2/17/2016	3/11/2016	2016 Progress Report - American Samoa	Web Map	shared			11	View Online
...EPA	2/16/2016	3/2/2016	Waste To Biogas Mapping Tool	Web Mapping Application	public		https://epamap21.epa.gov/bioga...	7	View Online
...EPA	2/11/2016	2/11/2016	Tanks & Flares	Feature Collection	private			0	View Online
...nk_EPA9	2/10/2016	3/11/2016	OMDS WAB Map	Code Attachment	private		https://epa.maps.arcgis.com/sh...	6	View Online
...nk_EPA9	1/29/2016	1/29/2016	Frank's App Builder ID Jan 29 2015	Web Mapping Application	private		http://frank-innovate:3344/web...	0	View Online

View Web Map JSON Backup

Web Map Name: Russian River Geographic Response Plan-Editable Version
Owner: Region9_EPA
Created: 12/19/2012
Modified: 7/16/2013

Back Up Date	Layer Count		
7/13/2015 7:07 AM	17	🔍	✖
7/10/2015 6:58 AM	17	🔍	✖
7/8/2015 7:15 AM	17	🔍	✖
7/6/2015 7:07 AM	17	🔍	✖
7/3/2015 7:42 AM	17	🔍	✖
7/1/2015 6:53 AM	17	🔍	✖
6/29/2015 12:03 PM	17	🔍	✖

Item Description:
{"avgRating": 0, "culture": "en-us", "owner": "Region9_EPA", "guid": ": "a86d96f1d1f44c2aad8761b8bb010eac", "size": -1, "appCategori n River, Geographic Response Plan, EPA Region 9", "languages": [Geographic Response P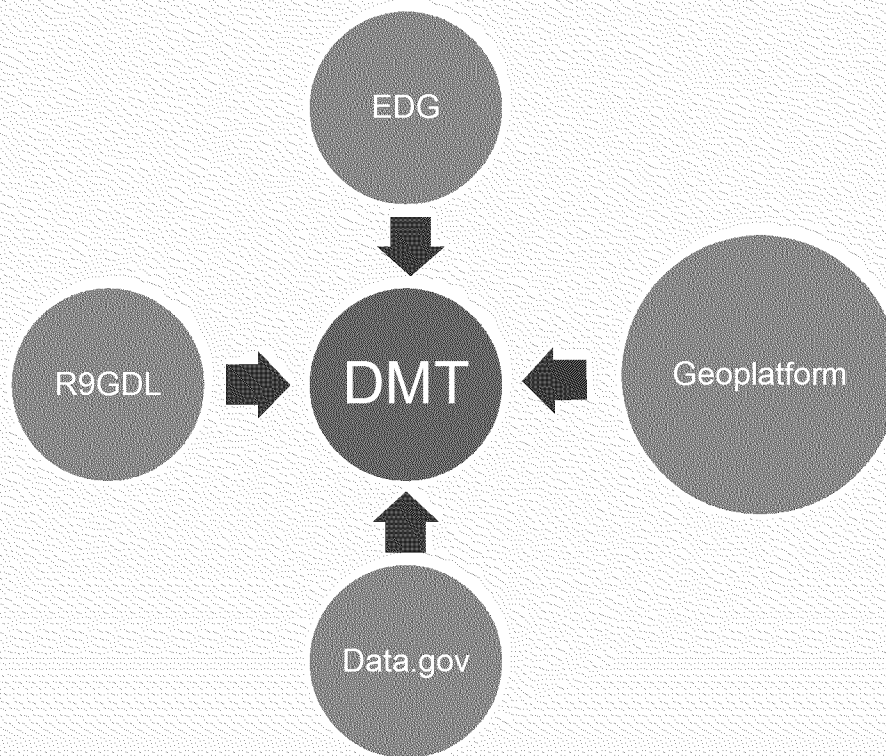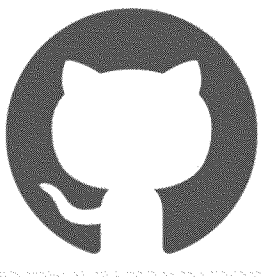lan-Editable Version", "numRatings": 0, "nu ": "private", "listed": false, "largeThumbnail": null, "type": "Web Map" ago_downloaded.png", "industries": [], "description": "<font color=# ses this web map to collect and verify field data using mobile device nt-size:11.0pt;line-height: 115%; font-family "Times New Roman ;mso-fareast-font-family "Times New Roman"; color:black US;mso-fareast-language:EN-US;mso-bidi-language: AR-SA'></spa 9", "Russian River", "Water", "Emergency Response"], "typeKeywor ollector", "Data Editing", "Explorer Web Map", "Map", "Online Map",
Item Data:
{"operationalLayers":[{"url":"http://orator.epa.gov/ArcGIS/rest/servic erver","id":"R9Scribe_5003","visibility":true,"visibleLayers":[0],"opacity":1,"title":"Scribe Data" },{"url":"http://gispub10.epa.gov/arcgis/rest/services/Region9/R9HomeViewBoundaries/MapS erver","id":"R9HomeViewBoundaries_1417","visibility":true,"visibleLayers":[0,5],"opacity":1,"ti tle":"Boundaries","layers":[{"id":0,"popupInfo":{"title":"US Coast Guard - EPA Jurisdictional Bo undary: {FNODE_}","fieldInfos":[{"fieldName":"OBJECTID","label":"OBJECTID","isEditable":fal se,"tooltip":"","visible":false,"format":null,"stringFieldOption":"textbox"},{"fieldName":"FNODE_

- *Harvest ArcGIS content from Online (EPA Geoplatform) on a regularly schedule basis*
- *Allows managers to review data sources for ArcGIS Online content (servers, rest endpoints, maps, embedded layers, feature services, host feature services, etc.)*
- *Allows managers to restore maps to an earlier point in time. Maybe a data source was accidentally dropped. A 30-day window is preserved.*
- *Allows managers to view content ownership.*

Code Mgmt

Github

- Version control
- Code or document collaboration
- Sharing
- Tracking issues/bugs

R9 GIS Repositories

USEPA/R9-Intranet
USEPA/R9-Admin
USEPA/R9-SOP
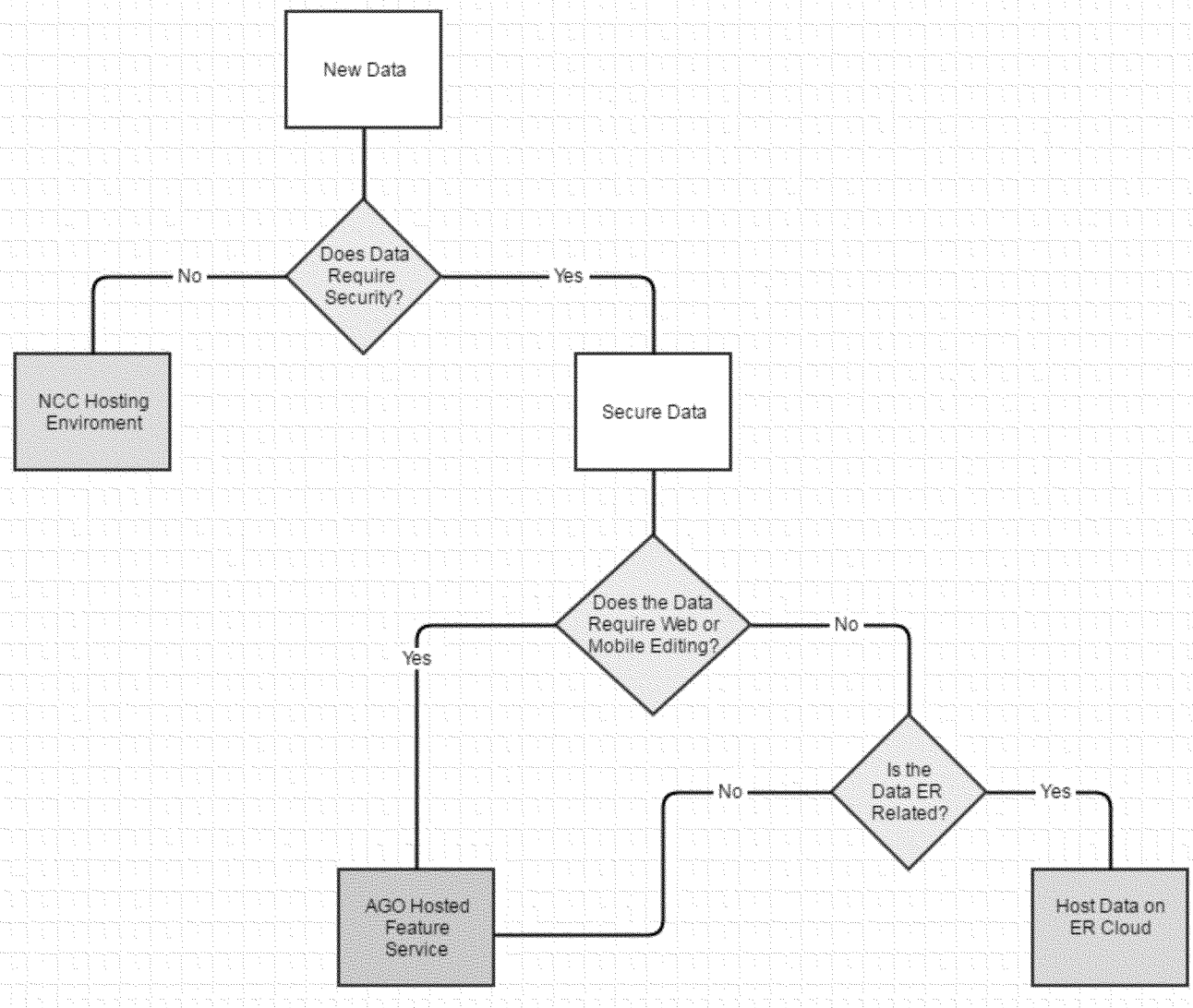USEPA/R9-ER
USEPA/R9-Flex-Viewer
USEPA/R9-JS_HTML5
USEPA/R9-Python
USEPA/R9-Public-Website
USEPA/R9-GIS-Center

Publishing Data

- What you should know:

- Nothing is simple
- Lots of rules to follow
- Lots of data to track
- Lots of documentation

Guidance, SOPs, Exec Orders

SOPs for:

- Applications
- Data Management
- Data Processing
- Geoplatform
- GPS
- Infrastructure Mgmt
- Map Service creation
- Metadata
- Mobile
- Project Management
- Website Tools
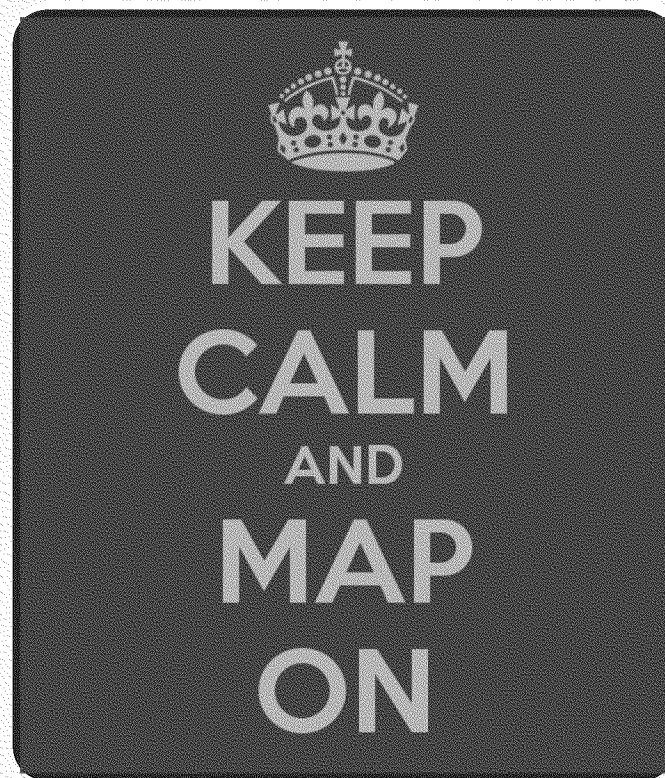
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